

Paper #20/IDS

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FORM PTO - 1449

SUPPLEMENTAL INFORMATION
DISCLOSURE STATEMENT

ATTORNEY DOCKET NO.: ASC-043

APPLICANT(S): Fitzgerald et al.

SERIAL NO.: 09/884,517

FILING DATE: June 19, 2001 GROUP: 2822

U.S. PATENT DOCUMENTS

EXAM. INIT.		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WEP	A21	4,010,045	3/1/1977	Ruchrwein			4/27/1976
	A22	4,997,776	3/1/1991	Haramé et al.			6/20/1990
	A23	5,013,681	5/7/1991	Godbey et al.			9/29/1989
	A24	5,166,084	11/24/1992	Pfiester			9/3/1991
	A25	5,177,583	1/1/1993	Endo et al.			1/10/1991
	A26	5,202,284	4/1/1993	Kamins et al.			12/1/1989
	A27	5,207,864	5/4/1993	Bhat et al.			12/30/1991
	A28	5,208,182	5/4/1993	Narayan et al.			11/12/1991
	A29	5,212,110	5/18/1993	Pfiester et al.			5/26/1992
	A30	5,221,413	6/22/1993	Brasen et al.			4/24/1991
	A31	5,250,445	10/1/1993	Bean et al.			1/17/1992
	A32	5,285,086	2/1/1994	Fitzgerald			6/18/1992
	A33	5,298,452	3/1/1994	Meyerson			2/21/1992
	A34	5,310,451	5/10/1994	Tejwani et al.			8/19/1993
	A35	5,316,958	3/29/1994	Meyerson			5/31/1990
	A36	5,346,848	9/13/1994	Gruppen-Shemansky et al.			6/1/1993
	A37	5,374,564	12/20/1994	Bruel			12/20/1994
	A38	5,399,522	3/1/1995	Ohuri.			3/21/1995
	A39	5,413,679	5/9/1995	Godbey et al.			6/30/1993
	A40	5,426,069	6/20/1995	Selvakumar et al.			4/9/1992
✓	A41	5,426,316	6/20/1995	Mohammad			6/8/1994

EXAMINER

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KBD	A42	5,461,243	10/24/1995	Ek et al.			10/29/1993
	A43	5,461,250	10/24/1995	Burghartz et al.			8/10/1992
	A44	5,462,883	10/31/1995	Dennard et al.			4/11/1994
	A45	5,476,813	12/19/1995	Naruse			11/14/1994
	A46	5,479,033	12/26/1995	Baca et al.			5/27/1994
	A47	5,484,664	1/16/1996	Kitahara et al.			1/21/1994
	A48	5,523,243	6/4/1996	Mohammad			6/8/1994
	A49	5,536,361	7/16/1996	Kondo et al.			1/23/1995
	A50	5,540,785	7/30/1996	Dennard et al.			4/4/1994
	A51	5,630,905	5/1/1997	Lynch et al.			6/5/1995
	A52	5,659,187	8/1/1997	Legoues et al.			6/7/1995
	A53	5,698,869	12/16/1997	Yoshimi et al.			9/13/1995
	A54	5,714,777	2/3/1998	Ismail et al.			2/19/1997
	A55	5,728,623	3/17/1998	Mori			3/16/1995
	A56	5,759,898	6/2/1998	Ek et al.			12/19/1996
	A57	5,786,612	7/28/1998	Otani et al.			4/16/1996
	A58	5,847,419	12/8/1998	Imai et al.			9/16/1997
	A59	5,877,070	3/2/1999	Goesle et al.			5/31/1997
	A60	5,906,708	5/25/1999	Robinson et al.			12/6/1995
	A61	5,912,479	6/15/1999	Mori et al.			7/25/1997
✓	A62	5,943,560	8/24/1999	Chang et al.			4/19/1996
EXAMINER <i>John K. Phung</i>				DATE CONSIDERED <i>10/22/03</i>			

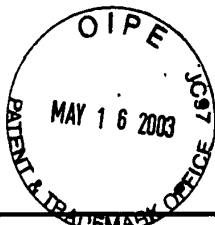


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<i>KBD</i>	A63	5,963,817	10/5/1999	Chu et al.			10/16/1997
	A64	5,966,622	10/12/1999	Levine et al.			10/8/1997
	A65	6,033,974	3/7/2000	Henley et al.			8/10/1999
	A66	6,033,995	3/7/2000	Muller			9/16/1997
	A67	6,074,919	6/13/2000	Gardner et al.			1/20/1999
	A68	6,103,559	8/15/2000	Gardner et al.			3/30/1999
	A69	6,133,799	10/17/2000	Favors, Jr., et al.			2/25/1999
	A70	6,140,687	10/31/2000	Shimomura et al.			11/26/1997
	A71	6,153,495	11/28/2000	Kub et al.			3/9/1998
	A72	6,154,475	11/28/2000	Soref et al.			12/4/1997
	A73	6,160,303	12/12/2000	Fattaruso			8/26/1998
	A74	6,162,688	12/19/2000	Gardner et al.			1/14/1999
	A75	6,184,111	2/6/2001	Henley et al.			8/10/1999
	A76	6,191,007	2/20/2001	Matsui et al.			4/28/1998
	A77	6,191,432	2/20/2001	Sugiyama et al.			9/2/1997
	A78	6,194,722	2/27/2001	Fiorini et al.			3/27/1998
	A79	6,210,988	4/3/2001	Howe et al.			1/14/2000
	A80	6,218,677	4/17/2001	Brockaert			8/15/1994
	A81	6,232,138	5/15/2001	Fitzgerald et al.			11/24/1998
	A82	6,235,567	5/22/2001	Huang			8/31/1999
<i>↓</i>	A83	6,242,324	6/5/2001	Kub et al.			8/10/1999
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<i>WBD</i>	A84	6,261,929	7/1/2001	Gehrke et al.			2/24/2000
	A85	6,271,551	8/7/2001	Schmitz et al.			12/13/1996
	A86	6,271,726	8/7/2001	Fransis et al.			1/10/2000
	A87	6,291,321	9/18/2001	Fitzgerald			3/9/1999
	A88	6,313,016	11/6/2001	Kibbel et al.			12/22/1999
	A89	6,316,301	11/13/2001	Kant			03/08/2000
	A90	6,323,108	11/27/2001	Kub et al.			7/27/99
	A91	6,329,063	12/11/2001	Lo et al.			12/11/1998
	A92	6,335,546	1/1/2002	Tsuda et al.			7/30/1998
	A93	6,368,733	4/9/2002	Nishinaga, Tatau			8/5/1999
	A94	6,372,356	4/16/2002	Thornton et al.			4/28/2000
	A95	6,403,975	6/11/2002	Brunner et al.			04/08/1997
	A96	6,425,951	7/30/2002	Chu et al.			8/6/1999
	A97	6,429,061	8/6/2002	Rim			7/26/2000
	A98	6,521,041	2/18/2003	Wu et al.			4/9/1999
	A99	6,555,839	04/29/2003	Fitzgerald			05/16/2001
	A100	2001/0003269	6/14/2001	Wu et al.			4/9/1999
	A101	2002/0140031	10/3/2002	Rim			3/31/2001
	A102	2002/0024395	02/28/2002	Akatsuka et al.			6/14/2001
	A103	2002/0052084	05/02/2002	Fitzgerald			5/16/2001
<i>✓</i>	A104	2002/0068393	6/6/2002	Fitzgerald et al.			8/6/2001
EXAMINER <i>Jehankh P. Roy</i>				DATE CONSIDERED <i>10/22/03</i>			



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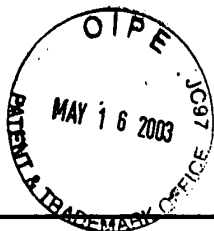
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KBD	A105	2002/0072130	6/13/2002	Cheng et al.			8/10/2001
	A106	2002/0096717	7/25/2002	Chu et al.			1/25/2001
	A107	2002/0100942	8/1/2002	Fitzgerald et al.			6/19/2001
	A108	2002/0123167	9/5/2002	Fitzgerald			7/16/2001
	A109	2002/0123183	9/5/2002	Fitzgerald			7/16/2001
	A110	2002/0123197	9/5/2002	Fitzgerald et al.			6/19/2001
	A111	2002/0125471	9/12/2002	Fitzgerald et al.			12/4/2001
	A112	2002/0125497	7/16/2002	Fitzgerald			7/16/2001
	A113	2002/0168864	11/14/2002	Cheng et al.			4/4/2002
	A114	2003/0013323	01/16/2003	Hammond et al.			6/14/2002
	A115	2003/0025131	02/06/2003	Lee et al.			8/2/2002
	A116	2003/0057439	03/27/2003	Fitzgerald			8/9/2002
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U.S. PATENT DOCUMENTS									
FOREIGN PATENT DOCUMENTS									
EXAM. INIT.		DOCUMENT NUMBER	DATE	COUNTRY CODE	CLASS	SUB CLASS	FILING DATE	ABSTRACT ONLY	ENGLISH LANG (Y/N)
KBP	B22	0 514 018	11/19/1992	EP				NO	YES
	B23	0 587 520	3/16/1994	EP				NO	YES
	B24	0 828 296	3/11/1998	EP				NO	YES
	B25	00/48239	8/17/2000	WO				NO	YES
	B26	01/22482	3/29/2001	WO				NO	YES
	B27	02/082514	10/17/2002	WO				NO	YES
	B28	02/27783	4/4/2002	WO				NO	YES
	B29	2 342 777	4/19/2000	GB				YES	YES
	B30	2 701 599	9/1/1993	FR				YES	YES
	B31	2000-031491	1/28/2000	JP				NO	NO
	B32	2002-076334	3/15/2002	JP				NO	YES
	B33	2002-164520	6/7/2002	JP				NO	YES
	B34	2002-289533	10/4/2002	JP				NO	YES
	B35	5-166724	07/23/1993	JP				NO	Abstract only
	B36	6-177046	06/24/1994	JP				NO	Abstract only
	B37	6-252046	09/09/1994	JP				NO	Abstract only
	B38	7-094420	04/07/1995	JP				NO	Abstract only
	B39	7-240372	09/12/1995	JP				NO	Abstract only
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OTHER ART, JOURNAL ARTICLES, ETC.			
EXAM. INIT.	OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)		
<i>KED</i>	C55	Augusto et al., "Proposal for a New Process Flow for the Fabrication of Silicon-based Complementary MOD-MOSFETs without ion Implantation," Thin Solid Films, vol. 294, no. 1-2, pp. 254-258 (February 15, 1997).	
	C56	Borenstein et al., "A New Ultra-Hard Etch-Stop Layer for High Precision Micromachining," Proceedings of the 1999 12th IEEE International Conference on Micro Electro Mechanical Systems (MEMS) (January 17-21, 1999) pp. 205-210.	
	C57	Bruehl et al., "@SMART CUT: A Promising New SOI Material Technology," Proceedings 1995 IEEE International SOI Conference (October 1995) pp. 178-179.	
	C58	Bruehl, "Silicon on Insulator Material Technology," Electronic Letters, Vol. 13, No. 14 (July 6, 1995) pp. 1201-1202.	
	C59	Burghartz et al., "Microwave Inductors and Capacitors in Standard Multilevel Interconnect Silicon Technology," IEEE Transactions on Microwave Theory and Techniques, Vol. 44, No. 1, January 1996, pp. 100-104.	
	C60	Chang et al., "Selective Etching of SiGe/Si Heterostructures," Journal of the Electrochemical Society, No. 1 (January 1991) pp. 202-204.	
	C61	Feijoo et al., "Epitaxial Si-Ge Etch Stop Layers with Ethylene Diamine Pyrocatechol for Bonded and Etchback Silicon-on-Insulator," Journal of Electronic Materials, Vol. 23, No. 6 (June 1994) pp. 493-496.	
	C62	Gray and Meyer, "Analysis and Design of Analog Integrated Circuits", John Wiley & Sons, 1984, pp. 605-632.	
	C63	Huang et al., "High-quality strain-relaxed SiGe alloy grown on implanted silicon-on-insulator substrate," Applied Physics Letters, Vol. 76, No. 19 (May 8, 2000) pp. 2680-2682.	
	C64	Huang et al., "The Impact of Scaling Down to Deep Submicron on CMOS RF Circuits", IEEE Journal of Solid-State Circuits, Vol. 33, No. 7, July, 1998, pp. 1023-1036.	
	C65	IBM Technical Disclosure Bulletin, Volume 32, No. 8A, January 1990, "Optimal Growth Technique and Structure for Strain Relaxation of Si-Ge Layers on Si Substrates", pp. 330-331.	
	C66	Ishikawa et al., "Creation of Si-Ge-based SIMOX structures by low energy oxygen implantation," Proceedings 1997 IEEE International SOI Conference (October 1997) pp. 16-17.	
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EXAM. INIT.	OTHER DOCUMENTS: (Including Author, Title, Date, Relevant Pages, Place of Publication)		
<i>NEP</i>	C67	Ishikawa et al., "SiGe-on-insulator substrate using SiGe alloy grown Si(001)," Applied Physics Letters, Vol. 75, No. 7 (August 16, 1999) pp. 983-985.	
	C68	Ismail, "Si/SiGe High-Speed Field-Effect Transistors," Electron Devices Meeting, Washington, D.C. (December 10, 1995) pp. 20.1.1-20.1.4.	
	C69	Kim et al., "A Fully Integrated 1.9-GHz CMOS Low-Noise Amplifier," IEEE Microwave and Guided Wave Letters, Vol. 8, No. 8, August 1998, pp. 293-295.	
	C70	Kuznetsov et al., "Technology for high-performance n-channel SiGe modulation-doped field-effect transistors," J. Vac. Sci. Technol., B 13(6), pp. 2892-2896 (November/December 1995).	
	C71	Larson, "Integrated Circuit Technology Options for RFIC's Present Status and Future Directions," IEEE Journal of Solid-State Circuits, Vol. 33, No. 3, March 1998, pp. 387-399.	
	C72	Lee and Wong, "CMOS RF Integrated Circuits at 5 GHz and Beyond", Proceedings of the IEEE, Vol. 88, No. 10, October 2000, pp. 1560-1571.	
	C73	Lu et al., "High Performance 0.1 μ m Gate-Length P-Type SiGe MODFET's and MOS-MODFET's", IEEE Transactions on Electron Devices, Vol. 47, No. 8, August 2000, pp. 1645-1652.	
	C74	M. Kummer et al., "Low energy plasma enhanced chemical vapor deposition," Materials Science and Engineering B89 (2002) pp. 288-295.	
	C75	Maszara, "Silicon-On-Insulator by Wafer Bonding: A Review," Journal of the Electrochemical Society, No. 1 (January 1991) pp. 341-347.	
	C76	Mizuno et al., "High Performance Strained-Si p-MOSFETs on SiGe-on-Insulator Substrates Fabricated by SIMOX Technology," IEEE IEDM Technical Digest, (1999 International Electron Device Meeting) pp. 934-936.	
	C77	Papananos, "Radio-Frequency Microelectronic Circuits for Telecommunication Applications", Kluwer Academic Publishers, 1999, pp. 115-117, 188-193.	
	C78	Rim et al., "Enhanced Hole Mobilities in Surface-channel Strained-Si p-MOSFETs"; IEDM, 1995, pp. 517-520.	
	C79	Sugimoto and Ueno, "A 2V, 500 MHz and 3V, 920 MHz Low-Power Current-Mode 0.6 μ m CMOS VCO Circuit", IEICE Trans. Electron., Vol.E82-C, No. 7, July 1999, pp. 1327-1329.	
<i>↓</i>	C80	Ternent et al., "Metal Gate Strained Silicon MOSFETs for Microwave Integrated Circuits", IEEE October 2000, pp. 38-43.	
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<i>John D. Perry</i>		<i>10/22/03</i>	



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	C81	Welser et al., "Electron Mobility Enhancement in Strained-Si N-Type Metal-Oxide-Semiconductor Field-Effect Transistors," IEEE Electron Device Letters, Vol. 15, No. 3 (March 1994) pp. 100-102.	
	C82	Wolf and Tauber, Silicon Processing for the VLSI Era, Vol. 1: Process Technology, Lattice Press, Sunset Beach, CA, pp. 384-386 (1986).	
	C83	Yeo et al., "Nanoscale Ultra-Thin-Body Silicon-on-Insulator P-MOSFET with a SiGe/Si Heterostructure Channel," IEEE Electron Device Letters, Vol. 21, No. 4 (April 2000) pp. 161-163.	
	C84	Zhang et al., "Demonstration of a GaAs-Based Compliant Substrate Using Wafer Bonding and Substrate Removal Techniques," Electronic Materials and Processing Research Laboratory, Department of Electrical Engineering, University Park, PA 16802 (1998) pp. 25-28.	
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